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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,695	09/10/2003	Scott A. Abfalter	6785-228	7542
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GREENBERG TRAURIG LLP (LA) 2450 COLORADO AVENUE, SUITE 400E INTELLECTUAL PROPERTY DEPARTMENT SANTA MONICA, CA 90404			EXAMINER WANG, JUE S	
			ART UNIT 2193	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/659,695

Applicant(s)

ABFALTER ET AL.

Examiner

Jue S. Wang

Art Unit

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1-37 have been examined.
2. Claim 4 was canceled in amendment dated October 9, 2007.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The following lacks antecedent basis in the claims:

- i. Claim 5, line 1, claim 6, line 1, recite "The method according to claim 4".  
Claim 4 is canceled in the present amendment. Since the canceled claim 4 originally depended on claim 1, it is believed that claim 5 and 6 was intended to depend on claim 1 and it is treated as such for compact prosecution of the claims.

Appropriate corrections are required.

Any claim not specifically addressed, above, is being rejected as incorporating the deficiencies of a claim upon which it depends.

*Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3, 5, 6, 8-24, 26-28, and 31-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Aghera et al. (US 2004/0098715 A1, hereinafter Aghera).

7. As per claim 1, Aghera teaches the invention as claimed, including a method for installing software to software-defined radio equipment comprising the steps of:

transferring software to a software-defined radio device from a software server, said software server remotely located with respect to said software-defined radio device (see Fig 1, [0002], [0022]-[0024]);

storing said software to a portion of a data store associated with said software defined radio device, said portion of said data store not being used as a storage for currently running software (see [0031], [0032], [0050], [0057], [0058]);

transferring a selection identifying at least one of said transferred software and said currently running software to be loaded by said software-defined radio device during a restart of said software-defined radio device (see [0026], [0043], [0053], [0058]-[0060]); and

loading at least one of said transferred software and said currently running software to said software-defined radio device during a restart of said software-defined radio device (see [0038], [0056]).

8. As per claim 2, Aghera further teaches the step of automatically reverting from to a previous software version upon a fault detection in loading the at least one of the transferred software or said currently running software (see [0055], [0059]).

9. As per claim 3, Aghera further teaches monitoring said transferring and loading step (see [0028], [0049], [0053]-[0055]).

10. As per claim 5, Aghera further teaches said selection identifies at least one of said transferred software and said currently running software (see [0026], [0047], [0053], [0058]).

11. As per claim 6, Aghera further teaches said selection identifies a software version (see [0026], [0047], [0058]).

12. As per claim 8, Aghera further teaches providing an error indication if a fault is detected in at least one of said transferring step and said loading step (see [0041]).

13. As per claim 9, Aghera further teaches said transferred software comprises a plurality of software components (see [0032]).

14. As per claim 10, Aghera further teaches a version indicator accessible from a remote location, said version indicator identifying software which is currently loaded on said software-defined radio device (see [0026], [0045], [0053]; EN: the operator would be capable of seeing the version).

15. As per claim 11, Aghera further teaches providing a software listing accessible from a remote location, said software listing identifying software currently available on said data store (see [0026], [0045], [0053]).

16. As per claim 12, Aghera further teaches storing said transferred software to a second data store associated with said software-defined device (see [0050]).

17. As per claim 13, Aghera further teaches said second data store is nonvolatile (see [0050]; EN: EEPROM is non-volatile memory).

18. As per claim 14, Aghera further teaches the transferring step occurs while said software-defined radio device continues to perform software-defined radio functions (see [0054]; EN: As the download is OTA, the radio must still perform wireless radio functionality during the transfer of the updates).

19. As per claim 15, Aghera further teaches that the software server is a computer operatively connected to said software-defined radio device via a communications network (see [0024]).

20. As per claim 16, Aghera teaches the invention as claimed, including a method for installing software to software-defined radio equipment, comprising the steps of:

receiving to a software-defined radio device software from a software server, said software server remotely located with respect to said software-defined radio device (see Fig 1, [0002], [0022]-[0024]);

storing said software to a portion of a data store associated with said software-defined radio device, said portion of said data store not being used as a storage for currently running software (see [0031], [0032], [0050], [0057], [0058]);

receiving to said software-defined radio device a selection identifying at least one of said transferred software and said currently running software to be loaded by said software-defined radio device during a restart of said software-defined radio device (see [0026], [0043], [0053], [0058]-[0060]);

loading said at least one of said transferred software and said currently running software (see [0038], [0056]); and

verifying said loading step (see Fig 11, [0059]).

21. As per claim 17, Aghera teaches automatically reverting from said at least one of said transferred software and said currently running software to a previous software version upon a fault being detected in said loading step (see [0055], [0059]).

22. As per claim 18, Aghera teaches providing an error indication upon said fault detection (see [0041]).

23. As per claim 19, Aghera teaches monitoring said receiving step and providing an error indication if a fault is detected in said receiving step (see [0041], [0049]).'

24. As per claim 20-24 and 26, these claims recite limitations that are substantially similar to the limitations of claims 6 and 10-14. Therefore, they are rejected using the same reasons as claims 6 and 10-14.

25. As per claim 27, Aghera teaches the invention as claimed, including a system for installing software to software-defined radio equipment comprising:

- a software server for transferring software to a software-defined radio device from a location remotely located with respect to said software-defined radio device (see Fig 1, [0002], [0022]-[0024]);

- a man-machine interface associated with said software server for receiving from a system operator a selection identifying at least one of said transferred software and said currently running software to be loaded at a next startup of said software-defined radio device (see [0026], [0043], [0053], [0058]-[0060]);

- a data store associated with said software-defined radio device for storing said software, said software stored on a portion of said data store which is not being used to provide currently running software (see [0031], [0032], [0050], [0057], [0058]); and

- a processor programmed to:

load a selected one of said transferred software and said currently running software to said software-defined radio device during a restart of said software-defined radio device (see [0038], [0056]); and  
automatically revert from said selected one of said transferred software and said currently running software to a previous software version if a fault occurs in said loading of said selected software (see [0055], [0059]).

26. As per claims 28, 31-37, these system claims recite limitations that are substantially similar to the limitations recited in claims 3 and 9-15. Therefore, they are rejected using the same reasons as claims 3 and 9-15.

*Claim Rejections - 35 USC § 103*

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

28. Claims 7, 25, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aghera et al. (US 2004/0098715 A1, hereinafter Aghera).

29. As per claim 7, Aghera does not explicitly disclose transferring and loading software to a second software-defined radio device as claimed. Official Notice is taken that at the time the

invention was made, it was well known in the art that a server can distribute multiple versions of software to device at the same time. It would have been obvious to one of ordinary skill in the art at the time the invention was made to send the software to a second device as this would ensure that multiple devices are all running the same version of software.

30. As per claim 25, Aghera does not explicitly disclose compressing and decompressing said software prior to transfer and installation. Official Notice is taken that at the time the invention was made, compression and decompression of information over a wireless network was well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to compress and decompress transferred software as this would reduce the required download time by making the software smaller in size.

31. As per claims 29 and 30, these system claims recite limitations that are substantially similar to the limitations recited in claims 7 and 25. Therefore, they are rejected using the same reasons as claims 7 and 25.

***Response to Remarks***

32. Rejection of Claims 1-37 under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a):

33. As per claims 1 and 16, Applicants argue that Aghera does not disclose transferring a selection identifying at least one of the transferred software and the currently running software to be loaded by said software-defined radio device during a restart of the device. Applicants'

arguments have been fully considered and Examiner respectfully disagrees. Aghera, in paragraph [0026], teaches a server application in which “an operator can select a particular software version of an application to be distributed to a particular type of device”. The patch version identifier associated with the software selected by the operator is transferred to the device (see [0043]). This patch version identifier is then used to load the selection made by the operator since multiple DSP patches may be stored in the DSP patch blocks, and the patch version table stores the DSP patch version and the location of the DSP patch data associated with the patch version (see [0058]), so patch loader can use the patch version table to locate the patch that is to be loaded (see [0059]). While Examiner agrees that Aghera does not teach “the server application can specify whether the transferred software or the currently running software will be loaded when the device boots”, however, this limitation is not required by the recited claim language of “transferring a selection identifying at least one of said transferred software and said currently running software to be loaded by said software-defined radio device during a restart of the software-defined radio device”. The transferred selection (i.e., patch version identifier associated with the selected patch) identifies the transferred DSP patch data to be loaded during a restart (see [0056], [0058], [0059]). Using the broadest reasonable interpretation, the claim language of “a selection identifying at least one of said transferred software and said currently running software” is interpreted a selection identifying said transferred software so that it can be selected from the multiple versions on the DSP when it is loaded since it is not required that the selection is between the transferred software and the currently running software. Examiner suggests that the claim language be amended to recite the actual intended limitation of “the server application

can specify whether the transferred software or the currently running software will be loaded when the device boots”.

34. As per claim 27, Applicants argue that Aghera does not disclose a man-machine interface which allows a system operator to make a selection identifying at least one of the transferred software or currently running software to be loaded at a next startup of a software-defined radio device. Applicants’ arguments have been fully considered and Examiner respectfully disagrees as per the reasons given above for claims 1 and 16.

35. As per claim 27, Applicants also argue that Aghera does not disclose automatically reverting from the at least one of the transferred and the currently running software to a previous software version upon a fault being detected in the loading step. Applicant's arguments have been fully considered and Examiner respectfully disagrees. While Aghera does not explicitly disclose reverting from the transferred software back to a previous version upon a fault being detected in the loading step, Aghera teaches verifying that the patch is loaded correctly (see Fig 11, [0059]) and storing a backup copy of "the already installed patch program or null patch program (see [0055]). The backup copy is already installed, so it is a previous version of the newly transferred version. Since it is a well known concept in the art to revert to a backup copy when the version currently being loaded is not loaded correctly, the combination of checking whether a patch is loaded correctly and storing a backup copy imply that the backup copy is used when the version currently being loaded is not loaded correctly.

36. As per claim 27, Applicants also argue that the disclosure of Aghera does not enable the application of its invention to software-defined radio equipment. Applicants' arguments have been fully considered and Examiner respectfully disagrees. Aghera teaches that the "wireless device can be any type of wireless device, such as a mobile communication device" (see [0024]), and the invention is motivated by issues related to managing the software on communications devices, such as Software Defined Radio (SDR) (see [0002], [0003]). Therefore, it is not clear why Applicants contend that Aghera is not enabled for software-defined radio equipment since Aghera teaches that the invention can be for any type of wireless device and software defined radios are a type of wireless device.

### *Conclusion*

37. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Fiske (US 6,324,692 B1) is cited to teach reverting to a backup copy of the program when the updated program is not loading correctly.
- Simionescu et al. (US 2003/0084337 A1) is cited to teach remotely controlled failsafe boot mechanism and manager for a network device.

38. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

39. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jue S. Wang whose telephone number is (571) 270-1655. The examiner can normally be reached on M-Th 7:30 am - 5:00pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MENG-AI T. AN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100  
Jue Wang  
Examiner  
Art Unit 2193